

WHAT IS CLAIMED IS

1. A photoelectric controller installed in a demonstrating apparatus, including:

5 a sensing unit for detecting a signal of a body motion;

a preamplifier unit receiving the signal from the sensing unit and performing primary amplification;

10 an amplifier unit receiving the signal from the preamplifier unit and performing secondary amplification;

a frequency discrimination amplifier unit receiving the signal from the amplifier unit, and performing a further amplification and phase discrimination;

15 a processing control unit receiving the signal from the frequency discrimination amplifier unit, and performing processing;

20 a sound actuating unit receiving the signal from the processing control unit to actuate a speaker.

2. The photoelectric controller according to claim 1, wherein the sensing unit is a thermoelectric detector.

25 3. The photoelectric controller according to claim 1, wherein the photoelectric controller further includes a language mode interchanging unit having a wave band interchanging switch,

30 the wave band interchanging switch having one end connecting to a power supply and the other end having a plurality of terminals each of which connects to the processing control unit.

4. The photoelectric controller according to claim 1, wherein a filter is provided between the preamplifier unit and the sensing unit, and a 'Π' type filter is provided between the input and the output of the preamplifier unit; and wherein the preamplifier unit and the amplifier unit are both operational amplifiers.

5. The photoelectric controller according to claim 1, wherein the photoelectric controller further includes an inductive indicator, which is connected between the processing control unit and the earth.

6. The photoelectric controller according to claim 1, wherein the processing control unit has built-in programs for controlling language mode interchanging and sound simulating.

7. A demonstrating apparatus simulating the real life traffic lights system built in the photoelectric controller, wherein, the demonstrating apparatus further including a lamp case having three indicator lights, a red light, a yellow light and a green light, and

an indicator-lights driving unit having three branch circuits, the indicator-lights driving unit connecting to the processing control unit to receive an output signal, so as to control the three indicator lights to turn on alternately;

the photoelectric controller is installed in the lamp case.

8. The demonstrating apparatus of claim 7, wherein the processing control unit has built-in programs for controlling the three indicator-lights to turn on alternately, language mode interchanging and sound simulating.

9. The demonstrating apparatus of claim 7, wherein the lamp case is installed on a support pole with a base there under, and wherein the sensing unit is mounted on the front face of the lamp case.

10. The demonstrating apparatus simulating a road sign built in the photoelectric controller, wherein, the demonstrating apparatus further including a plurality of signboards which can be exchanged,

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a bracket for holding the signboard,

a stand for supporting the bracket with a base there under,

10 a plurality of operation switches connecting to the processing control unit, the operation switches corresponding to various road signs;

the photoelectric controller is installed in the bracket.

15 11. The demonstrating apparatus simulating a parking meter built in the photoelectric controller, the demonstrating apparatus further including a meter head having an operation panel, a time indication light, and coin dropping/card inserting slots;

a stand holding the meter head; and

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a time & fee control unit connected between a power supply and the processing control unit, the time & fee control unit confirming parking time and payment method;

the photoelectric controller is installed in the meter head.

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12. The demonstrating apparatus of claim 11, wherein the processing control unit has built-in programs for time counting, fee calculating, language mode interchanging, and sound simulating.

30 13. The demonstrating apparatus of claim 11, wherein the demonstrating apparatus further includes a parking time & payment method display unit, which indicates parking time and payment method,

the parking time & payment method display unit being connected between the processing control unit and the earth.

- 5 14. The demonstrating apparatus simulating a railroad crossing built in the photoelectric controller, the demonstrating apparatus further including a crossing bar having a lift arm, a case, and a stand for supporting the lift arm and the case; and

a lift arm actuating unit connecting to the processing control unit to receive an output  
10 signal, so as to actuate a motor to raise/drop the lift arm;

the photoelectric controller is installed in the case.

- 15 15. The demonstrating apparatus of claim 14, wherein the processing control unit has built-in programs for alternate arm raising/dropping, language mode interchanging and sound simulating.

16. The demonstrating apparatus of claim 14, wherein the lift arm actuating unit  
20 contains an arm-raising actuating branch and an arm-dropping actuating branch,

the arm-raising actuating branch driving the motor to rotate clockwise, and the arm-dropping actuating branch driving the motor to rotate counterclockwise.

- 25 17. The demonstrating apparatus of claim 14, wherein the demonstrating apparatus further includes an alarm-lights actuating unit and two alarm lights;

the alarm-lights actuating unit connecting to the processing control unit to receive an output signal, the alarm-lights actuating unit having two actuating branches to  
30 respectively actuate the two alarm lights, so as to control the two alarm lights to turn on alternately.

18. The demonstrating apparatus of claim 14, wherein the sensing unit is mounted on

the front of the case, and the stand has a cross-shaped signboard mounted thereon.

19. The demonstrating apparatus simulating a gas pump built in the photoelectric controller, the demonstrating apparatus including a control box having control panel,

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an oil gun connected to the control box via a flow line,

an oil grade control unit confirming the oil grade,

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a payment control unit confirming payment amount, and

a confirmation unit confirming money transaction;

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the oil grade control unit, the payment control unit, and the confirmation unit are connected between the processing control unit and a power supply,

the photoelectric controller is installed in the control box.